WHEELCHAIR LIFT REPLACEMENT

SALT LAKE CITY ARTCC
Salt Lake City, UT

SPECIFICATIONS

Request-For-Offer Issue

SEPTEMBER 2011

Prepared by: Federal Aviation Administration
ATO Tech Ops Engineering Services
Seattle Enroute Unit

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END OF DOCUMENT

DIVISION 1

GENERAL CONDITIONS

SECTION 01000

SUMMARY OF WORK

PART 1- GENERAL

1.1 Scope of work.- These specifications, together with the referenced specifications and standards specified in the Contract Documents, cover the requirements for all work associated with the Wheelchair Lift Replacement project at the Salt Lake City Air Route Traffic Control Center (ZLC ARTCC) located at 2150 West 700 North, Salt Lake City, Utah, 84116. Following is a general description of the work:

Remove and replace existing Garaventa inclined platform wheelchair lift and associated components located at Stairway #5 (near the cafeteria and loading dock area). Components shall include:

- Platform
- Drive cabinet
- Wall supports
- Guide rails
- Landing control buttons (top and bottom of stairs)
- Pedestrian warning light and chime
- Electrical power conduit and wiring

The contractor shall connect the new inclined platform wheelchair lift to the existing electrical supply. All electrical work shall be completed by licensed electricians and in accordance with the National Electrical Code. New inclined platform wheelchair lift shall be commercial grade and shall be furnished and installed in accordance to specification section 14420, "Inclined Wheelchair Platform Lifts."

All work must be coordinated in order to maintain a secured 24/7 operational facility.

FAA Holiday Moratorium: No work shall be scheduled or take place during the week of and the weekend preceding the Thanksgiving, Christmas and New Years Holidays. The moratorium period will not be counted against the contract construction duration for the project.

Perspective bidders are required to attend a mandatory Pre-Bid Meeting yet to be announced. Contractors shall assess actual site conditions before submitting a bid. Contact the Resident Engineer, Mike Fitch at 801-320-2522.

1.2 Intent of specifications.-

(a) This specification identifies all labor and equipment to perform the work required to refurbish the facility. All work performed and all materials and equipment used shall be approved by the Contracting Officer (CO). This shall include but not be limited to inspection, scheduling, reporting, and submittals.

(b) Titles.- Titles to divisions and sections of the specifications and notes and titles on drawings referring to subcontractors, division of work by trade, or type of work, are introduced merely for convenience in reading the specifications and drawings and do not imply any separate contractual

arrangements of work assignments. Such separations into titled divisions and sections shall not operate to make the Government an arbiter to establish subcontract limits between the contractor and subcontractors, or between the subcontractors themselves.

1.3 Contract documents.-

The construction at this facility shall be in accordance with the lines and grades shown on the drawings. The contractor shall not use dimensions scaled from drawings. All dimensions shown on the drawings shall be verified by the contractor by actual measurements in the field. Any discrepancies between the drawings and specifications and the existing conditions shall be referred to the CO for adjustment before any work affected is performed.

1.4 Precedence of contract documents.-

(a) In the event of a difference between the following contract provisions, the order of precedence to determine which provision shall govern is:

1. Contract Clauses and Provisions
2. Project Specifications
3. Project Drawings as listed in Part III - Section J

(b) Any discrepancies between the contract provisions, the specifications and the contract drawings shall be referred to the CO for a written determination in accordance with Contract Clause entitled **Order of Precedence** Refer to Part II, Section I.

1.5 Contracting Officer.- The term "Contracting Officer" (CO) as used herein denotes the person designated to act on behalf of the Government in the performance of this contract. Where reference is made to "Federal Aviation Administration" (FAA), "Resident Engineer" (RE), "Contracting Officer's Representative" (COR), or the like, this shall mean the Contracting Officer or his/her authorized representative.

1.6 Contractor Superintendence.- In accordance with Contract Clause entitled SUPERINTENDENCE BY THE CONTRACTOR, the Contractor shall at all times during performance of this contract and until the work is completed and accepted by the Government, directly superintend the work or assign and have on site a competent superintendent with the authority to act for the Contractor.

END OF SECTION 01000

SECTION 01020

SITE ACCESS, CONSTRUCTION LIMITS, USE OF FACILITIES AND WORK HOURS

PART 1-GENERAL

1.1 Existing facility operations.- The Salt Lake City ARTCC is a secure 24 hour, 7 day per week operating facility. The Contractor shall perform all work in a manner which does not conflict with or adversely affect the air traffic operational environment or functions of the ARTCC. In the event of any actual or potential conflict, air traffic control activities shall have priority over all Contractor activities. The Contractor shall plan for and provide services in such a manner and at such times that will not disrupt facility operations, and shall conform to those procedures considered essential by the FAA for ensuring air traffic safety.

1.2 Construction limits and access.-

(a) The contractor shall confine operations, activities, storage of materials and employee parking within the designated area, as indicated on the drawings. Additional space the contractor deems necessary shall be obtained off site, at no additional cost to the Government.
(b) Access for the contractor, sub-contractors, employees, deliveries, etc., will be in approximate locations as indicated on the construction staging plan.
(c) Access to the construction site shall be kept unobstructed. If temporary access obstruction is unavoidable, the contractor shall advise the RE immediately.
(d) Temporary roadways and/or other access may be authorized only by the facility, via the RE.
(e) Vehicles transporting materials shall not be loaded beyond the capacity prescribed by Federal, State or Local law.
(f) Obstruction of existing roadways, driveways, etc., to the ARTCC is strictly prohibited. Access to the loading dock and ramp shall be maintained.
(g) Damage caused by the contractor's activities to existing paving, lawns, curbs, sidewalks, interior/exterior of the building shall be repaired. All costs of repairs shall be paid by the contractor. After notice to proceed and prior to the commencement of construction, the contractor and RE shall conduct joint inspections of the existing areas affected by the construction. Existing damage/defects shall be noted and will be used as the basis for determination of damages caused by the contractor's operations.
(h) Coordinate with the RE and ensure that no vapors, fumes, and odors enter facility air intakes. Provide additional ventilation as required and coordinate with the facility on all operations, potential fumes, and air handler operation to ensure that the facility operations are not impacted.

1.3 Contractor's use of premises.-

(a) Contractor shall assume full responsibility for the protection and safekeeping of products stored on the site.
(b) The contractor and his subcontractors shall maintain the job site in a neat and orderly condition.
(c) Concessionaires shall not be allowed on the grounds of the facility.

1.4 Government use and access to premises.-

(a) The Government reserves the right to enter the premises during the term of the contract for periodic work inspections and for maintenance of existing equipment. The Contractor shall allow the CO and RE complete access to all portions of the work.
(b) See Part II, Section I, Contract Clause entitled OTHER CONTRACTS, for work by other contractors.

1.5 Work hours.- Work shall be performed during normal working hours (7:00 a.m. to 3:30 p.m.) except for the following:

(a) The contractor may request to work outside the normal working hours, early morning or late afternoons, due to weather conditions, provided that this is scheduled and coordinated with the RE and it is determined that working the requested hours would be mutually beneficial. No claims for increased overhead or equitable adjustment will be entertained if the Contractor elects to work outside normal working hours.
(b) Shutdowns and cutovers of environmental, utility and electrical systems impacting the facility operations shall be accomplished between the hours of 10 p.m. and 6 a.m. All preparatory work shall be completed prior to shutdown/cutover to minimize downtime. Shutdown and cutovers shall be scheduled and coordinated with the RE a minimum of 10 working days in advance of the shutdown/cutover.
(c) Construction noise within the facility must be minimized between 7:00 a.m. and 8:30 p.m. and shall be scheduled in advance, coordinated with the facility and approved by the RE.

1.6 Notification of planned overtime work.- In the event the contractor intends to work extended hours outside of the normal working hours the contractor shall notify the RE at least 24 hours in advance of planned commencement of the overtime work. In the event the contractor requests to work weekends the request must be made a minimum of 48 hours (2 working days) prior to the intended start of the work. In the event the contractor requests to work on a holiday the request must be made in writing a minimum of 5 working days prior to the intended start of the work.Overtime, weekend, or holiday work must be mutually beneficial to both the government and the contractor as determined by the Contracting Officer.

1.7 Security requirements.-

(a) Contractor shall provide the CO prior to Notice-To-Proceed with a complete list of contractor and subcontractor personnel. The list shall be kept current during project work. No Contractor employees, associates, or other representatives shall be permitted access to the ARTCC grounds until that person's name and Government issued photo ID has been provided and the appropriate security investigation has been completed by an FAA security officer for approval of access to the site with specified restrictions, if any. The FAA security officer may refuse access to the site to any employee, associate or other representative at any time for any reason.
(b) Contractor and subcontractor personnel may be subject to a security investigation by the FAA. The contractor shall promptly complete and return applicable security forms furnished with the contract document for each employee as required. Forms must be completed and returned to the CO prior to subject employees working in the facility.
(c) Contractor's personnel shall report to the FAA Security Guard at the front security gate and submit proper identification to obtain an FAA badge which will be worn on an outside garment at all times while on the ARTCC premises. This badge shall be returned daily to the security guard when such personnel leave the ARTCC premises.

(d) Work shall be arranged so that contractor's personnel can be escorted when required by the FAA, in certain areas which are considered to be restricted. No Contractor employee, associate, or other representative shall have any visual, audible, or physical access to any area marked as a "closed area". Any persons gaining access to any "closed area" shall report the access to the CO who will coordinate with the FAA security office for a de-brief. Contractor's personnel shall not violate any security regulations pertaining to the ARTCC facility. Violators may be removed from the premises with the right to re-enter revocable. Contractor's day-to-day work schedules in the restricted areas shall be so arranged to allow for minimum escort.

(e) Current procedures at FAA facilities include the "right to search". Access to the site constitutes consent to search. If in the judgment of the FAA Security Guard a cause to search a vehicle or the person of personnel exists, such search will be made.

END OF SECTION 01020

Contractor/Subcontractor List

Name	Company	Government-Issued Photo ID	Dates to be on Site	
			Begin on:	End On:

SECTION 01040

CUTTING AND PATCHING

PART 1 - GENERAL

1.1 Requirements included.- Contractor shall be responsible for all cutting, fitting and patching, required to complete the work or to:

(a) Remove and replace defective work.
(b) Remove and replace work not conforming to requirements

1.2 Submittals.-

(a) Submit a written Request for Information (RFI) to the RE a minimum of 2 working days in advance of executing any cutting or alteration which may affect:

1. Work of the Government or any separate contractor.
2. Structural integrity of any element of the Project.
3. Integrity of weather-exposed or moisture- resistant elements or systems.
4. Efficiency, operational life, maintenance or safety of operational elements.
5. Visual qualities of sight-exposed elements.

(b) Request shall include:

1. Identification of the Project.
2. Description of affected work.
3. The necessity for cutting, alteration, or excavation.
4. Effect on work of Government or other work, or on structural or weatherproof integrity of the affected element.
5. Description of proposed work:
   a) Scope of cutting, patching, alteration, or excavation.
   b) Trades who will execute the work.
   c) Products proposed to be used.
   d) Extent of refinishing to be done.
6. Alternatives to cutting and patching.
7. Cost proposal, when applicable
8. Written concurrence of any separate contractor whose work will be affected.

(c) Should conditions of work or the schedule indicate a change of products from original installation, contractor shall submit request for substitution as specified in Section 01090, "Materials and Equipment."

(d) Submit written notice to the RE designating the date and time the work will be uncovered.

PART 2 - PRODUCTS

2.1 Materials.- Comply with specifications and standards for each specific product involved.

PART 3 - EXECUTION

3.1 Inspection.-

(a) Inspect existing conditions of project.
(b) After uncovering work, inspect conditions affecting installation of products, or performance of work.
(c) Report unsatisfactory or questionable conditions to the RE in writing; do not proceed with work until the RE has provided further instructions.

3.2 Preparation.-

(a) Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of work.
(b) Provide devices and methods to protect other portions of project from damage.
(c) Provide protection from elements for that portion of the project which may be exposed by cutting and patching work.

3.3 Performance.-

(a) Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs.
(b) Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerance and finishes.

END OF SECTION

SECTION 01090

MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.1 Requirements Included.-

(a) Material and equipment incorporated into the work:

1. Conform to applicable specifications and standards.
2. Comply with size, make, type and quality specified, or as specifically approved in writing by the CO.
3. Manufactured and Fabricated Products: Design, fabricate and assemble in accordance with the best engineering and shop practices.
4. Do not use material or equipment for any purpose other than for which it is designed or is specified.

1.2 Related Requirements.-

(a) Part I, Section E, F, G.
(b) Section 01300: Submittals
(c) Occupational Safety and Health Standards for Construction (29 CFR PART 1926)
Subpart H - Materials Handling, Storage, Use and Disposal

1.3 Manufacturer's Instructions.-

(a) When Contract Documents requires that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including two copies to the RE.
(b) Handle, install, connect, clean, condition and adjust products in strict accordance with such instructions and in conformity with specified requirements.

1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with the RE for further instructions.
2. Do not proceed with work without clear instructions.

(c) Perform work in accordance with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

1.4 Transportation and Handling.-

(a) Arrange deliveries of products in accordance with construction schedules, coordinate to avoid conflict with work and conditions at the site.

1. Deliver products in undamaged condition, in manufacturer's original containers or packing, with identifying labels intact and legible.

2. Immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents and approved submittals, and that products are properly protected and undamaged.

(b) Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packing.

1.5 Storage.-

(a) Store products in accord with manufacturer's instructions, with seals and labels intact and legible.

1. Store products subject to damage by the elements in weather tight enclosures.
2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.

(b) Arrange storage in a manner to provide easy access for inspection.

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 – GENERAL

Applicable provisions of this Section and other provisions and requirements of the Contract Documents apply to all sections, except as modified in Sections of Divisions 2 through 16.

1.1 SUMMARY

Submit Shop Drawings, product data, samples, warranties, certificates, test reports as required by the contract documents.

1.2 RELATED REQUIREMENTS

A. Section 01090: Materials and Equipment

B. Section 01770: Closeout Procedures

1.3 SUBMISSION REQUIREMENTS

A. Number of Copies - Submit prepaid and in ample time for approval before installation. Unless otherwise noted, submit four (4) copies of documents to the Resident Engineer (RE). Two (2) copies will be retained by the RE. If additional copies are required, provide the quantity and submit additional copies to meet this requirement.

B. Time for Approval - Receive submittal approvals prior to starting the work. Time necessary for government approval or disapproval of samples, certificates, test reports, and shop drawings will not be more than 21 calendar days after receipt of a submittal. All materials installed in the work shall match the approved submittals. After a submittal has been approved, no substitutions will be permitted without written approval by the RE. No extension of Contract Time will be authorized because of failure to transmit to the RE sufficiently in advance of the Work to permit processing.

C. Submittal Approval - The checking, marking or approval of the submittal by the FAA shall not be construed as a complete check, but will indicate only that the product or method of construction and detailing is satisfactory. Approval will not relieve the contractor of the responsibility for compliance with the specifications or for any error which may exist. The Contractor shall be responsible for the dimensions and design of adequate connections, details, and satisfactory construction of all work. Possible approval actions taken by the FAA include:

1. Approved as submitted - If "approved as submitted" is marked by the RE, each copy of the submittal will be identified as having received such approval by being stamped and dated. After submittal has been approved, no substitutions will be permitted without written approval by the RE.

2. Approved as noted - If "approved as noted" is marked by the RE, the submittal is satisfactory contingent upon Contractor acceptance of corrections, notations, or both, and if accepted, does not require resubmittal.
3. Not approved - If "not approved" is marked by the RE, the submittal data does not meet job requirements and the Contractor must resubmit. If the submittal is disapproved, the Contractor shall resubmit the corrected material in the same quantity as specified for the original submittal. Correct disapproved submittals and resubmit for approval by the RE. Approval of resubmittals require an additional 14 calendar days.
4. Submittal Schedule - Identify within the Contractor's Construction Schedule a schedule of submittals for shop drawings, material approval, etc., showing the dates when submittals will be submitted for the project.

    a) Contents - On the schedule indicate the following information:

        1) Schedule date for submittal

        2) Related Section number.

        3) Submittal category (Shop Drawings, Product Data, or Samples).

        4) Name of the subcontractor (if applicable)

        5) Description of the part of the Work covered.

5. Distribution - Following response to the initial submittal, print and distribute copies to the RE, Government, subcontractors, and other parties required to comply with submittal dates indicated. When revisions are made, distribute to the same parties. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
6. Schedule Updates - Revise the schedule after each meeting or activity where revisions have been recognized or made.

D. Construction Schedule – The progress chart to be prepared by the Contractor pursuant to the Contract Clause entitled "SCHEDULES FOR CONSTRUCTION CONTRACTS" shall consist of network analysis system, or pertchart (barchart). The Contractor shall be required to complete the work under the contract as specified in section 01000.

NO PHYSICAL CONSTRUCTION WORK AT THE SITE MAY TAKE PLACE UNTIL THE CONTRACTOR SUBMITS AND THE GOVERNMENT APPROVES THE SCHEDULE. Government review of schedule submittal(s) will not exceed 21 calendar days. Resubmittal, if necessary shall not exceed 14 calendar days.

E. Submittals - Submit shop drawings, material and equipment lists, and all other data required under various headings of these specifications necessary to permit commencement of work. RE will return the submittals within 21 calendar days after receipt, indicating approval or disapproval.

F. All submittals are due 21 Calendar days after contract award unless otherwise stated by Contracting Oficer or if work starts sooner. Contractor shall take precautions in allowing enough time for submittal review before work on the submitted task/items needs to start. The contractor shall be responsible for delay if there is not sufficient time for the submittal review/approval process.

1.4 PRODUCT DATA

A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, Material Safety Data Sheets (MSDS), standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.

B. Preparation

1. Clearly mark or highlight each copy to identify pertinent site specific products or models the Contractor intends to use
2. Highlight/clearly indicate all performance characteristics and capacities
3. Highlight/clearly indicate all dimensions and clearances required

Note: If the submittal is not clearly marked, regarding the above pertinent data, the submittal will be returned marked "DISAPPROVED".

1.5 WARRANTIES/GUARANTIES

A. Assemble two (2) copies with original signatures of warranties executed by each of the respective manufacturers, suppliers, and subcontractors into a warranty book and prepare a Table of Contents.

B. Additional Data - Provide complete information for each item, include the following:

1. Product or work team
2. Firm, with name of principal, address, and telephone
3. Scope
4. Effective dates of warranty based on Final Acceptance of the item.
5. Information for owner's personnel on proper procedures to evoke the warranty in case of failure and instances which might affect the validity of warranty.

C. Warranties - Effective after project completion and acceptance by the FAA.

PART 2 – MATERIAL

NOT USED

PART 3 – EXECUTION

3.1 GENERAL

Submittals are required for the items listed in the specifications or on the drawings. The following is a partial list of submittals required: Schedules, Manufacturer's Literature, Shop Drawings, Samples, Test Reports, Warranties, Certificates, Design Calculations, MSDS, and Installation Instructions. It should not be construed as a complete list of all submittals required. Submittal dates shall comply with this specification unless a more stringent date is specified. Substitutions and all requested changes will require a submittal.

3.2 SCHEDULE

For the following particular submittals under Division 1, the submittals must be approved prior to any work on site. For the following submittals of Divisions 2 thru 16, the submittals must be approved prior to any work on site involving the corresponding specification section listed.

PART 4 – QUALITY ASSURANCE

NOT USED.

* * * **END OF SECTION** * * *

SECTION 01730

OSHA SAFETY REQUIREMENTS

PART 1 – GENERAL

1.1 SCOPE

A. This section identifies some of the requirements of the OSHA Construction Standard.

B. Formulation of a site specific safety plan

1.2 CONTRACTOR RESPONSIBILITY

A. General Safety Provisions - The Contractor shall bear full responsibility to provide safe working conditions for its employees and Contractors. The Contractor shall not permit any employee or subcontractor to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to the health and safety of the employee.

B. Accident Prevention - The Contractor shall bear the responsibility of maintaining an accident prevention program such that frequent and regular inspections of the job site, materials and equipment are made by a competent person designated by the employer.

C. Use of Equipment - The Contractor shall not permit the use of any machinery, tool, material, or equipment that is not in compliance with OSHA regulations. The employer shall permit only those employees qualified by training and/or experience to operate equipment and machinery.

D. MSDS Sheets - Adhesives sealants and primers used produce odorous vapors which are a tremendous concern with the Air Traffic Controllers. Submit MSDS sheets of all materials.

1.3 CONTRACTOR RESPONSIBILITY

A. The FAA shall not be held responsible for safety inspections to assure Contractor conformance with the OSHA safety regulations. The FAA, however, reserves the right to notify the Contractor of any deficiencies regarding worker safety.

B. The FAA will evaluate the Contractor on its safety performance, including that of its Subcontractors. The number and severity of safety and security violations will be considered in this evaluation. Contractor safety violations are cause for termination for default, may result in notification of the Contractor's bonding company, and will affect the Contractor's opportunity to propose on future work. Failure to correct such deficiencies may impact the Contractor's ability to work on future FAA contracts.

1.4 OSHA REGULATIONS

A. The Contractor shall comply with the latest Occupational Safety and Heath Administration regulations (CFR 29 Part 1926) regarding safety in the work area.

B. The Contractor shall be responsible for obtaining copies of non-FAA referenced documents without additional cost to the FAA. If Contractor requests, a copy of FAA directives may be obtained by contacting the Contracting Officer.

C. The Contractor is not relieved from adhering to other OSHA requirements not listed herein. The Contractor shall consult the latest referenced OSHA documents for safety regulations.

1. Documents:
   a) OSHA Documents:
      1) CFR 29 Part 1926Safety and Health Regulations for Construction
      2) CFR 29 Part 1910 General Industry Standards Applicable to Construction Industry
2. FAA Documents:
   a) FAA Order 3900.49 Control of Hazardous Energy During Maintenance, Servicing and Repair.
   b) FAA Order 3900.19B Occupational Health and Safety Program.

1.5 SAFETY PLAN

The Contractor must develop and implement a site specific comprehensive Health and Safety Plan (HASP) based on the scope of work, for his or her employees as well as others in the area and the properties around. It shall cover all aspects of onsite construction operations and activities associated with the contract. This plan must comply with 29 CFR 1926, FAA Order 3900.19B, other applicable health and safety regulations and any project-specific requirements. The Contractor must provide the Contracting Officer with a copy of this plan. Acceptance of the Contractor's HASP only signifies that the plan generally conforms to the requirements of the contract. It does not relieve the Contractor of the responsibility for providing with a safe and healthful work environment. At a minimum the HASP shall address the following:

A. Workplace address

B. Name and address of the principal contractor

C. Key Personnel, phone nos and addresses

D. Estimated duration of the work

E. Hazard assessment and identification of the hazards in the scope of work

F. Mitigation of hazards and proposed control measures for the risks

G. Hazard Communication methods

H. How the controls will be implemented

I. Personal Protective Equipment

J. Training

K. Temperature Extreme

L. Medical Surveillance

M. Exposure Monitoring and Air Sampling

N. Site Control

O. Emergency Response/Contingency Plan

P. Emergency Action Plan

Q. Confined Space Entry

R. Spill Containment

S. Documentation and Record Control

T. Arrangements for monitoring and reviewing controls

The plan must be written so it is easy to understand, signed and dated by the General Contractor. It must be available for the length of the project. The General Contractor cannot allow work to start unless the plan has been discussed with or a copy given to all relevant people and the plan is readily available for inspection. The plan must be amended if there are changes in how risks will be managed. The General Contractor must inform any affected person of the change.

PART 2 – MATERIAL

NOT USED

PART 3 – EXECUTION

3.1 CFR 29 PART 1926 -- SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION

A. This section contains a partial listing of the referenced OSHA standards. The Contractor is responsible for adhering to all applicable regulations including those not specifically referenced herein.

1. Subpart D (Occupational Health and Environmental Controls) - Contractor shall furnish adequate supply of potable water in containers clearly marked as potable water. Containers containing non-potable water shall be clearly marked. Contractor shall furnish toilet facilities based on the number of employees present on the job-site. A minimum of 1 facility is required for less than 20 employees. See CFR 29 Part 1926 Subpart D for complete requirements.

2. Subpart E (Personal Protective Equipment) - The Contractor shall provide adequate protection for the head, hearing, and eyes for all employees working in an area where hazards to the head, ear and eyes exist. See CFR 29 Part 1926 Subpart E for complete requirements.

   A minimum of **Eye and face protection, hard hat, Protective footwear and safety vest are required** on all SL ARTCC construction projects.

   Eye and face protection
   equipment shall be worn at all times and meet the requirements of ANSI/American Society of Safety Engineers(ASSE) Z87.1, and bear a legible and permanent "Z87" logo to indicate compliance with the standard.

   Head protection
   All persons working in or visiting hard hat areas shall be required to wear Type l or Type ll, Class G or Class E head gear.

   Hard hat areas or activities
   Are those areas with potential hazard of head injury; in general, all construction areas are considered hard hat areas. However, areas may be considered non-hard hat areas, or activities may be considered non-hard hat activities, if identified and properly documented by the RE.

   Protective Footwear.
   Personnel shall, as a minimum, wear safety-toed boots meeting ASTM Standards F2413 and F2413 while working on construction sites.

   High-visibility Apparel
   Or safety vest meeting a minimum, ANS/ISEA requirements, shall be worn by all construction personnel at all times when on the SL ARTCC site. High visible shirts with contractor logo can be worn if approved by RE.

   Employees shall wear clothing suitable for the weather and work conditions. At a minimum, this shall be:
   1. Short sleeve shirts
   2. Long pants, (excessively long or baggy pants are prohibited).

3. Subpart I (Tools) - All hand tools and power tools and similar equipment whether furnished by the Contractor or the employee shall be maintained and operated in a safe condition. Personal protection shall be used when applicable. The use of tools shall be limited to the intended use of said tools. See CFR 29 Part 1926 Subpart I for complete requirements.
4. Subpart K (Electrical) - The Contractor shall furnish ground fault protection for all electrical equipment used on the jobsite. Extension cords shall be three wire ground in good shape. Installation of the facilities will require energizing numerous circuits. The Contractor shall protect against electrical shock by methods such as posting warning signs, supplying insulated gloves, applying

contractor locks and tags to circuits that have been de-energized by FAA facility ESU technicians, and other similar methods. See CFR 29 Part 1926 Subpart K for complete requirements.

3.2 CFR 29 PART 1910 -- GENERAL INDUSTRY STANDARDS APPLICABLE TO CONSTRUCTION INDUSTRY

A. This section contains a partial listing of the referenced OSHA standards. The Contractor is responsible for adhering to all applicable regulations including those not specifically referenced herein.

1. Section 1910.147 - Contractor shall maintain a written hazardous energy control procedure in accordance with CFR 29 1910.147. The written procedure shall describe contractor's responsibilities regarding shift changes or personnel changes. A specific coordinated lockout/tagout procedure shall be recorded in writing and signed by the Contractor and Contracting Officer with copies to each party. Lockout/tagout plan shall be submitted.
2. Section 1910.120 - The Contractor shall develop and implement an Emergency Response and Contingency Plan in accordance with OSHA Standard 29 CFR 1910.120. In the event of an emergency associated with remedial action, the Contractor shall, without delay, take diligent action to remove or otherwise minimize the cause of the emergency; alert the Contractor; and institute whatever measures might be necessary to prevent any repetition of the conditions of actions leading to, or resulting in, the emergency. Emergency contact names and telephone numbers shall be posted at all project phones and in site-support vehicles as well as included within the plan. Emergency Plan Shall be submitted.
3. FAA Order 3900.19B – Occupational Health and Safety Program

a) The contractor shall follow all sections of this Order pertaining to the work of under this contract including, but not limited to the following:

1) Chapter 34 Electrical Safety – All energized electrical work shall conform to OSHA standards and latest edition of NFPA 70E. All energized electrical work shall be performed under an energized work permit except as noted in NFPA 70E. The energized work permit shall be submitted to the COTR (RE) for review.

PART 4 – QUALITY ASSURANCE

4.1 SUBMITTALS

Submittals required include, but are not necessarily limited to, the following:

A. Contractor Safety Plan – FAA to keep 1 copy

B. Lockout/Tagout Plan

C. Emergency Plan

D. MSDS

*** * * END OF SECTION * * ***

SECTION 01750

PROTECTION OF EXISTING CONDITIONS AND INSTALLED WORK

PART 1 – GENERAL

1.1 SECTION INCLUDES

This section includes the basic care the Contractor shall use to prevent unnecessary damage to property in or near the Worksite during performance of the work

1.2 PROTECTION OF EXISTING STRUCTURES, EQUIPMENT, AND FACILITIES

A. The Contractor shall take all precautions necessary to protect the existing facilities, equipment and buildings during construction. Any areas damaged shall be repaired or replaced at no additional cost to the FAA. Repairs shall be approved by the RE. All repairs shall match the original finish and be made utilizing materials equal in quality to the existing.

B. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site which are not to be removed and which do not unreasonably interfere with the work required under this contract.

C. The Contractor shall protect from damage all existing improvements and utilities at or near the worksite.

1.3 PROPERTY PROTECTION

A. The Contractor shall hold the FAA harmless from any and all suits, actions, and claims for damages, including environmental impairment, to property arising from any act or omission of the Contractor, its Subcontractors, or any employee of the Contractor or Subcontractors, in any way related to the work or operations under this contract.

B. The Contractor shall indemnify and hold harmless the FAA lawfully in possession against all claims or liabilities asserted by third parties, including all governmental agencies, resulting directly or indirectly from the Contractor's wrongful or negligent acts or omissions.

1.4 PROTECTION OF INSTALLED WORK

A. Protect installed work. Provide special protection where required in the Specifications and drawings or under manufacturer's warranty.

B. Provide temporary and removable protection for installed products. Control activities in immediate work area to prevent damage.

C. Protect finished floors and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

D. Prohibit traffic or storage upon completed surfaces. Obtain protection instructions from the manufacturer if traffic or activity is necessary.

PART 2 – MATERIAL

NOT USED

EXECUTION

NOT USED

PART 3 – QUALITY ASSURANCE

NOT USED

* * * **END OF SECTION** * * *

SECTION 01760

ORDERLY WORKSITE AND SITE CLEANUP

PART 1 – GENERAL

1.1 SECTION INCLUDES

This section sets out the basic Contractor requirements for maintaining an orderly and clean worksite.

1.2 BASIC REQUIREMENTS

A. The worksite, including storage areas, shall be kept clean and orderly during progress of the work. The Contractor shall be personally responsible for the storage of tools and materials. The Contractor shall and shall require each subcontractor engaged upon the work to bear full responsibility for cleaning up during and immediately upon completion of their work.

B. The Contractor shall provide on-site containers for the collection of waste material, debris and rubbish and periodically remove as required or at the direction of the RE. Any spillage on access or haul routes shall be cleaned up immediately. All spoil, waste, or debris removed from the work site and not specified for reuse or identified as salvageable items, shall become the property of the Contractor and shall be disposed of off site in areas authorized by the applicable County, State and/or Local agencies and in accordance with current rules and regulations governing the disposal of such waste. Disposal fees and miscellaneous charges shall be paid by the Contractor.

C. Unless specifically set forth in the Contract, burning is not permitted for the disposal of refuse and debris. All rubbish, waste, tools, equipment, and other apparatus caused by or used in the execution of the work shall be removed. This shall in no way be construed to relieve the Contractor of its primary responsibility for maintaining the facilities and the site clean and free of debris, and leaving all work in a clean and proper condition acceptable to the RE.

D. Immediately after unpacking, all packing material, case lumber, wrappings, or other rubbish, flammable or otherwise, shall be collected and removed from the building and the premises.

PART 2 – MATERIAL

NOT USED

PART 3 – EXECUTION

3.1 PROGRESS CLEANING AND WASTE REMOVAL

A. Remove all rubbish, waste, tools, equipment, and appurtenances used from the worksite at the end of each day. Maintain egress, safety, and sanitation.

B. Remove debris and rubbish from closed or remote spaces before enclosing the space. Collect and remove waste materials, debris, and rubbish from site, and dispose of off-site.

C. Sweep and vacuum clean interior areas before start of surface finishing and continue cleaning daily to eliminate dust.

3.2 OVERALL CLEANING

A. Immediately before the final inspection, the entire exterior and interior of any building and the surrounding areas shall be thoroughly cleaned by the Contractor, including but not limited to the following:

1. All construction facilities, debris, and rubbish shall be removed from any building and the site.
2. All finished surfaces within any building shall be swept, dusted, vacuumed, washed, or polished as required.
3. All tools, scaffolding, temporary utility connections or buildings, belonging to the Contractor, or used under his/her direction, shall be removed from the site.

3.3 FINAL CLEANING

A. Thoroughly clean entire worksite and exterior and interior of any building affected by the work.

B. Remove debris and rubbish from any building and the worksite.

C. Finished surfaces within any building shall be swept, dusted, vacuumed, washed, or polished as required.

D. Remove all tools, scaffolding, temporary utility connections or buildings belonging to the Contractor or its lower tier subcontractors from the Site.

PART 4 – QUALITY ASSURANCE

NOT USED

*** * * END OF SECTION * * ***

SECTION 01770

CLOSEOUT PROCEDURES

PART 1 – GENERAL

1.1 SECTION INCLUDES

This section sets out the requirements for contract closeout at completion of the work.

1.2 FINAL SUBMITTAL REQUIREMENTS

Prior to final acceptance, the Contractor shall assemble all appropriate warranties, product information, certifications, equipment installation instructions, MSDS sheets, and the results of all tests.

1.3 COMPLETION CERTIFICATE

A. When Contractor considers the work completed, Contractor shall submit a signed certification in the certifying the following:

1. Contract Documents have been reviewed and work inspected for compliance with the Contract, including Punchlist work, and accepted by the FAA.
2. All materials used in the project are asbestos and lead free.
3. Record Documents, As-Builts, final project photographs, damage or settlement survey, property survey, Record Drawings and similar final record information as required and acceptable to the CO have been submitted by the Contractor.
4. Equipment/systems have been tested in the presence of the RE and are operational.
5. Required operational, and maintenance manuals, data and parts list have been submitted and approved.
6. Spare parts have been provided as required.
7. Warranties and guarantees have been prepared and found acceptable to CO.
8. Work is completed, premises cleaned and ready for inspection, temporary facilities and services have been removed, and pre-existing conditions have been restored.
9. All maintenance personnel have been properly instructed in the use of the facilities and all installed equipment as required by the Contract Documents.
10. Contractor has released all property installed in the performance of the contract and all GFE/GFP not used has been transferred to the FAA and delivered to place of origin.
11. Return of all identification badges and keys.

1.4 CONTRACTOR PUNCH LIST

The Contractor shall compile their internal punchlist to include discrepant and/or non-conforming work, materials and equipment and any other unacceptable items and conditions. The RE shall not be contaced for involvement with the Contractor's internal punchlist at this time.The Contractor shall assure, in accordance with their internal QC Program and all

applicable standards that all punchlist items and items that have been otherwise identified as discrepant have been completed and are in accordance with all applicable contract documents. Satisfaction of the Contractor's internal punchlist shall be completed prior to notification of the COR/RE that work has been satisfactoritly completed. Upon notification by the Contractor the RE may conduct a punchlsit inspection prior to the Connstruction Acceptance Inspection (CAI). Note that any items found discrepant during the CAI will be noted on the CAI by the RE and become a matter of the CAI record.

1.5 CONTRACTOR ACCEPTANCE INSPECTION (CAI)

A. The Contractor shall coordinate with the RE to schedule a date for the CAI. The Contractor shall notify the CO in writing seven days (or as otherwise agreed to) before the CAI date.

B. The Contractor shall have the superintendent present at the CAI. The RE shall conduct an inspection of the facility to verify all contract conditions are met. Any additional required test results shall be submitted to the RE at this time. The RE reserves the right to have local FAA personnel conduct additional tests to verify that operational requirements are met. The FAA reserves the right to have personnel present to document any concerns regarding final condition of the Site.

1.6 AS-BUILT DRAWINGS

NOT USED.

1.7 FINAL ACCEPTANCE OF WORK

A. The Contractor shall correct all noted discrepancies prior to the final acceptance. The premises shall be thoroughly clean prior to final acceptance. Contractor shall schedule final inspection and notify in writing the CO and RE seven days (or as otherwise agreed to) before the planned inspection date.

B. Contractor shall have the superintendent present at the final inspection. The RE shall conduct the final inspection of the facility to verify all contract conditions are met.

C. Upon acceptance by FAA, Contractor may submit Final Application for Payment

PART 2 – MATERIAL

NOT USED

PART 3 – EXECUTION

NOT USED

PART 4 – QUALITY ASSURANCE

NOT USED

*** END OF SECTION ***

DIVISION 14

CONVEYING SYSTEMS

SECTION 14420

INCLINED WHEELCHAIR PLATFORM LIFT

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Indoor inclined platform wheelchair lifts.

1.2 REFERENCES

A. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.

B. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities.

C. NFPA 70 - National Electric Code.

1.3 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Submit manufacturer's installation instructions, including preparation, storage and handling requirements.
   2. Include complete description of performance and operating characteristics.
   3. Show maximum and average power demands.

C. Shop Drawings:
   1. Show typical details of assembly, erection and anchorage.
   2. Include wiring diagrams for power, control, and signal systems.
   3. Show complete layout and location of equipment, including required clearances.

D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finish product specified, two samples, representing actual product, color, and patterns.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Firm with minimum 10 years documented experience in manufacturing of inclined wheelchair platform lifts of installations of type specified.

B. Installer Qualifications: Firm licensed to install equipment of this scope, with evidence of experience with specified equipment. Installer shall be a certified installer by the lift

manufacturer and shall maintain an adequate stock of replacement parts and have qualified people available to ensure timely maintenance and callback service in the State of Utah.

1.5 REGULATORY REQUIREMENTS

A. Provide platform lifts in compliance with:
   1. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.
   2. ASME A17.5 - Elevator and Escalator Electrical Equipment.
   3. NFPA 70 - National Electric Code.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store components off the ground in a dry covered area, protected from adverse weather conditions.

1.7 PROJECT CONDITIONS

A. Do not use wheelchair lift for hoisting materials or personnel during construction period.

1.8 WARRANTY

A. Warranty: Manufacturer shall warrant the wheelchair lift materials and workmanship for two years following completion of installation.

B. Extended Warranty: Provide an extended manufacturer's warranty for the entire warranty period covering the wheelchair lift materials and workmanship for the following additional extended period beyond the initial warranty. Preventive Maintenance/Service agreement required.
   1. **Two additional years (4 years total with warranty and service agreement).** Provide maintenance plan, frequency, and tentative schedule.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Known Acceptable Manufacturers:
B. Garaventa Lift;
C. ThyssenKrupp Access Corporation.

2.2 STAIR LIFT FOR STRAIGHT STAIRWAYS

A. Inclined Platform Lift: Stair-Lift to serve one flight of straight stairs, with two landings and two stops. Lift consists of an extruded aluminum guide rail, a folding platform that is moved along the guide rail by an integrated rack and pinion drive system, overspeed safety system and call stations at each landing. Conform to the following design requirements:
   1. Application:

a. Indoor.
2. Platform Load Rating: 495 lb.
3. Travel Speed: 13 fpm traveling up; 16 fpm traveling down.
4. Platform Deck: Surface shall be slip resistant with the following features:
   a. **Platform Size A (ADA Compliant): 31 1/2 in. wide by 49 1/4 in. long.**
5. Platform Operation:
   a. Automatic Fold: Folded and unfolded electrically from the call station.
   b. Emergency Manual Fold: When unit is left in the open position, the platform may be manually folded and retained in the closed position.
6. Under Platform Obstruction Sensing:
   a. Provide an under-platform sensing device to stop the platform from traveling in the downward direction when encountering pressure.
   b. Platform is permitted to travel in the opposite direction of the obstruction to allow clearing.
7. Passenger Restraining Arms:
   a. Platform equipped with retractable passenger restraining arms in compliance with ASME A18.1a – 2001 or more recent edition.
   b. Arms stop moving when an obstruction causing pressure is encountered and will immediately retract when the signal is removed.
   c. Provide with means to manually unlock and open the restraining arms for passenger emergency evacuation.
   d. Arms are folded and unfolded electrically from the call stations or platform controls.
8. Boarding Ramps:
   a. Provide boarding sides of platform with retractable ramps positioned for travel.
   b. Lock ramps in their guarding positions during travel. When the platform is at the landing, only the retractable ramp servicing the landing shall be operable.
   c. Ramps shall be folded and unfolded electrically.
   d. Provide a means to manually unlock the ramps for emergency evacuation when the platform is located at a landing.
   e. Provide with a bi-directional obstruction sensitive device on the travel direction side end of the platform to stop the lift when pressure is encountered. Platform is permitted to travel in the opposite direction of obstruction to allow clearing.
9. Platform Sidewall:
   a. Provide on the non-boarding and non-guide rail side of the platform a sidewall.
   b. When the platform is folded the sidewall shall cover the platform controls, providing protection from vandalism.
10. Hand Grips:
    a. Equip platform with tubular steel hand grip or grab bar at the top of the platform. The hand grip is to cover the entire width of the platform.
11. Clearances Dimensions:
    a. The platform shall not protrude more than 10 1/4 in. from the mounting surface when folded and stored.
    b. The platform shall not protrude more than 40 1/4 in. from the mounting surface when unfolded and in use.
12. Controls:
    a. Controls: 24 VDC Low Voltage type.

b. Platform equipped with emergency stop switch located within reach of the passenger. When activated the emergency stop button shall cause electric power to be removed from the drive system stopping lift immediately.
c. Operating controls shall be two separate constant pressure buttons with directional arrows, mounted on the front surface of the platform control panel.
d. When the platform arrives at landing and the user releases the directional control button, the passenger restraining arms and boarding ramp shall unfold automatically allowing passenger to disembark.
e. Platform control panel shall include a receptacle for an optional plug-in hand-held attendant pendant control.
f. Platform shall be equipped for:
1) Keyed Operation.
g. Provide control to automatically fold the platform into the storage position if left unused in the open position at a landing for a period of 1 – 10 minutes (field adjustable).
h. Provide control wiring to allow the platform to be folded into the storage position from the opposite call station.
i. Provide control wiring to allow the platform to be called to the opposite landing in the folded open position.

13. Attendant Hand-Held Pendant Control: Provide lift with a plug-in pendant control for attendant operation.
14. Autofold Platform: Provide to automatically fold platform into storage position when left unused in open position at lower landing for field-adjustment period of 1 – 10 minutes.
18. Platform on-Board Emergency Alarm: Provide platform with an on-board alarm that sounds when emergency stop button is pushed. The alarm shall have a battery back-up so that it will continue to function if lift power is lost.

B. Drive and Guide Rail System:
1. Operation:
a. Motor: 3/4 HP electric motor with an integrated brake.
b. Required power: 208-240 VAC, single phase, 50/60 Hz. on a dedicated 15 amp circuit. Power Transmission: Worm gear reduction to a pinion moving on a fixed gear rack.
c. A frequency inverter shall be used to smoothly start and stop the platform motion.
d. Drive carriage and associated control devices to be located within the platform conveyance.
e. An upper final limit switch shall be provided to stop the lift in the event of a failure of the primary limit switch.
f. Drive system shall be equipped with an hour counter.
2. Guide Rail System:
a. Two-part guide rail system consisting of:
1) Main Upper Rail: Anodized aluminum extrusion with integrally mounted zinc plated gear rack.
2) Lower Rail: Anodized aluminum extrusion.
b. Rail Mounting:
1) Rails shall be directly mounted to the stairway wall.

c. Provide a mechanical stop at the upper landing to prevent over-travel of the drive carriage in the event of a switch failure.

3. Provide overspeed governor and brake on upper carriage drive, containing mechanical overspeed sensor and lock, with electrical drive cut-out protection.
4. Provide with manual handwheel for emergency operation.
5. Emergency Battery Operation:
   a. Auxiliary Power: Provide an external battery back-up system for normal up/down lift operation during a power failure for a minimum period of one hour with rated load.

C. Call Stations:
1. Provide surface mounted call stations at both landings.
2. Call station operating voltage to be 24V.
3. Call stations shall be provided with constant pressure directional control buttons for call and send.
4. A one-touch control system shall be used to automatically fold/unfold the platform, boarding ramps and passenger restraining arms.
5. Call stations shall be equipped for:
   a. Keyed Operation.
6. Provide constant pressure Attendant Call buttons on each call station.
7. Mounting:
   a. Lower landing call station:
      1) Surface mounted call station.
   b. Upper landing call station:
      1) Surface mounted call station.

D. Additional Safety or Code Requirements:
1. Wall Mounted Audio-Visual Alert: Provide wall mounted audio-visual alter(s) with adjustable volume control tht sound while the lift is in operation and are visible by pedestrian traffic from all flights and landings.

E. Finish Environment Requirement:
1. Design and fabricate lift to manufacturer's standard design for indoor locations.
   a. Aluminum guide rails and ramps to be anodized aluminum. Steel components shall be painted with electrostatically applied and baked powder coat as follows:
      1) Custom color as selected by Architect from an RAL color chart.
   b. Electrical printed circuit boards and control transformers to be treated with a conformal coating for resistance to ambient moisture.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. Verify electrical rough-in is at correct location.

C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install platform lifts in accordance with in compliance with regulatory requirements specified and the manufacturer's instructions.

B. Install system components and connect to building utilities.

C. Accommodate equipment in space indicated.

D. Install all electrical and control wiring in conduit and in accordance with the National Electrical Code.

E. Startup equipment in accordance with manufacturer's instructions.

F. Adjust for smooth operation.

3.4 FIELD QUALITY CONTROL

A. Perform tests in compliance with regulatory requirements specified and as required by authorities having jurisdiction.

B. Schedule tests with agencies and Architect, Owner, and Contractor present.

3.5 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

3.6 TRAINING

A. Provide onsite training, fully demonstrating lift operations and safety features.

END OF SECTION